

ABSTRACT

The invention relates to an internal combustion engine with direct petrol injection and controlled ignition, comprising at least one cylinder (1), a cylinder head (6), sealing the cylinder (1), a piston (7), arranged to run in the cylinder (1), a combustion chamber (2), defined by the piston (7) and the cylinder head (6), a petrol injection means (3) into the combustion chamber (2), an ignition means (4), for producing an ignition of the air/petrol mixture in the combustion chamber (2), inlet (8) and exhaust (9) valves, selectively sealing the combustion chamber (2) and means for recirculation of at least a part of the exhaust gas into the combustion chamber (2) during the air intake phase, characterized in that the pressure provided for the injection means (3) is greater than 250 bars, such as to homogenize the air/petrol/recycled exhaust gas mixture and increase the speed of combustion.